

# TB Trends in Arizona

Arizona Department of Health Services  
Bureau of Epidemiology and Disease  
Control

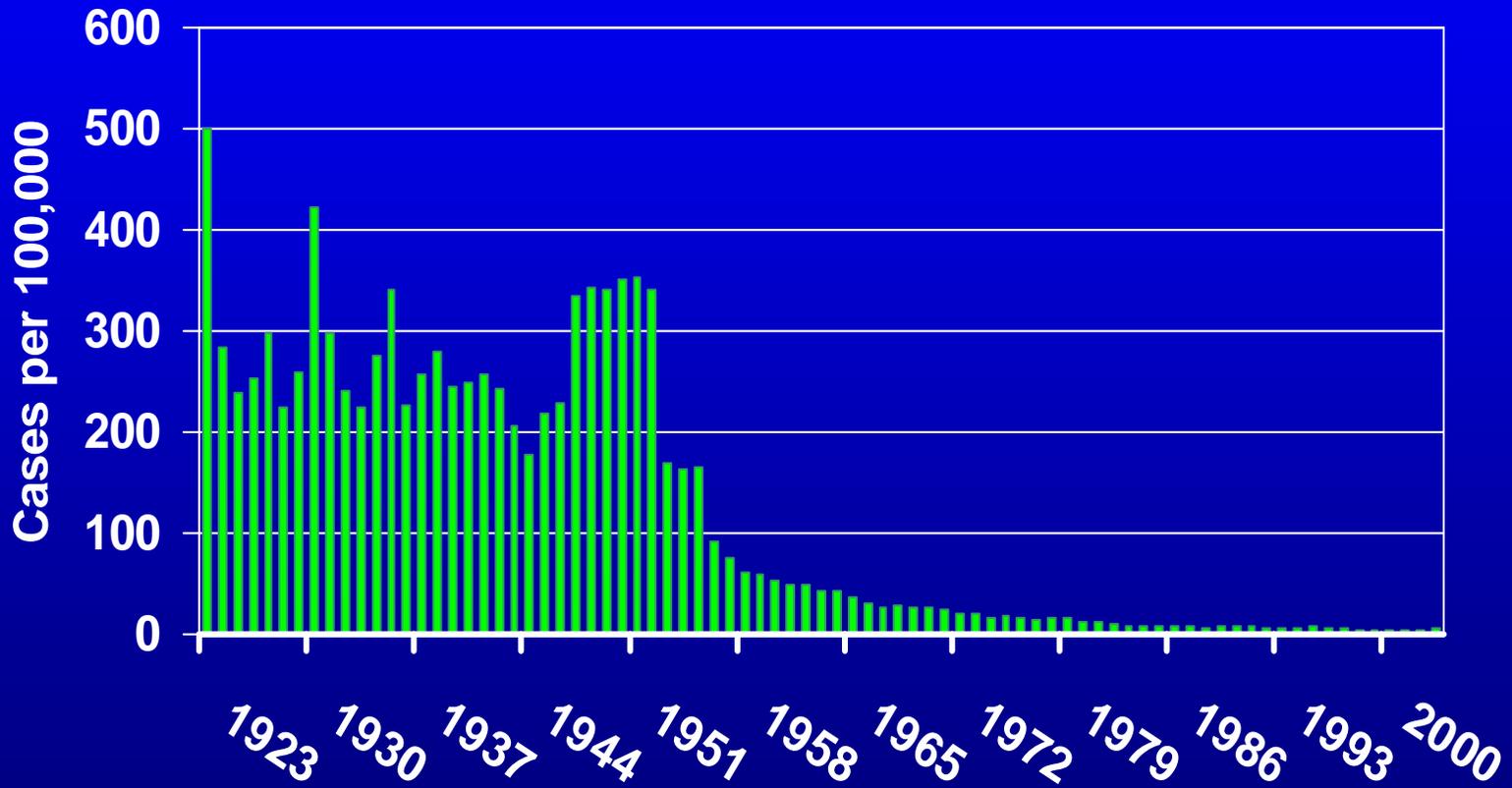
Tuberculosis Control Section

May 2004

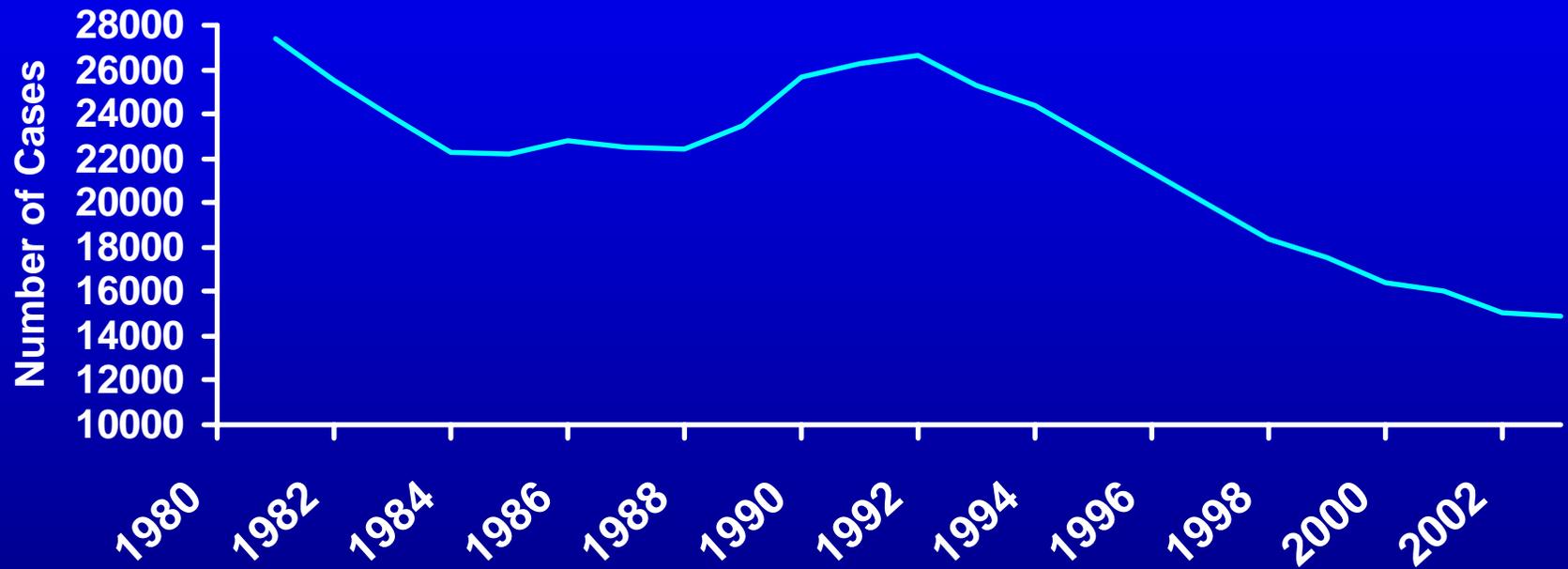
# ARIZONA

- Sixth largest state
- Phoenix is the sixth largest city in U.S.
- Population 5.6 million: 64% non-Hispanic White, 25% Hispanic, 5% Native American, 3% Black, 2% Asian
- Shares 360 miles of border with Sonora, Mexico (19% of the US-Mexico border)

# Tuberculosis Case Rates per 100,000, Arizona, 1923 - 2003



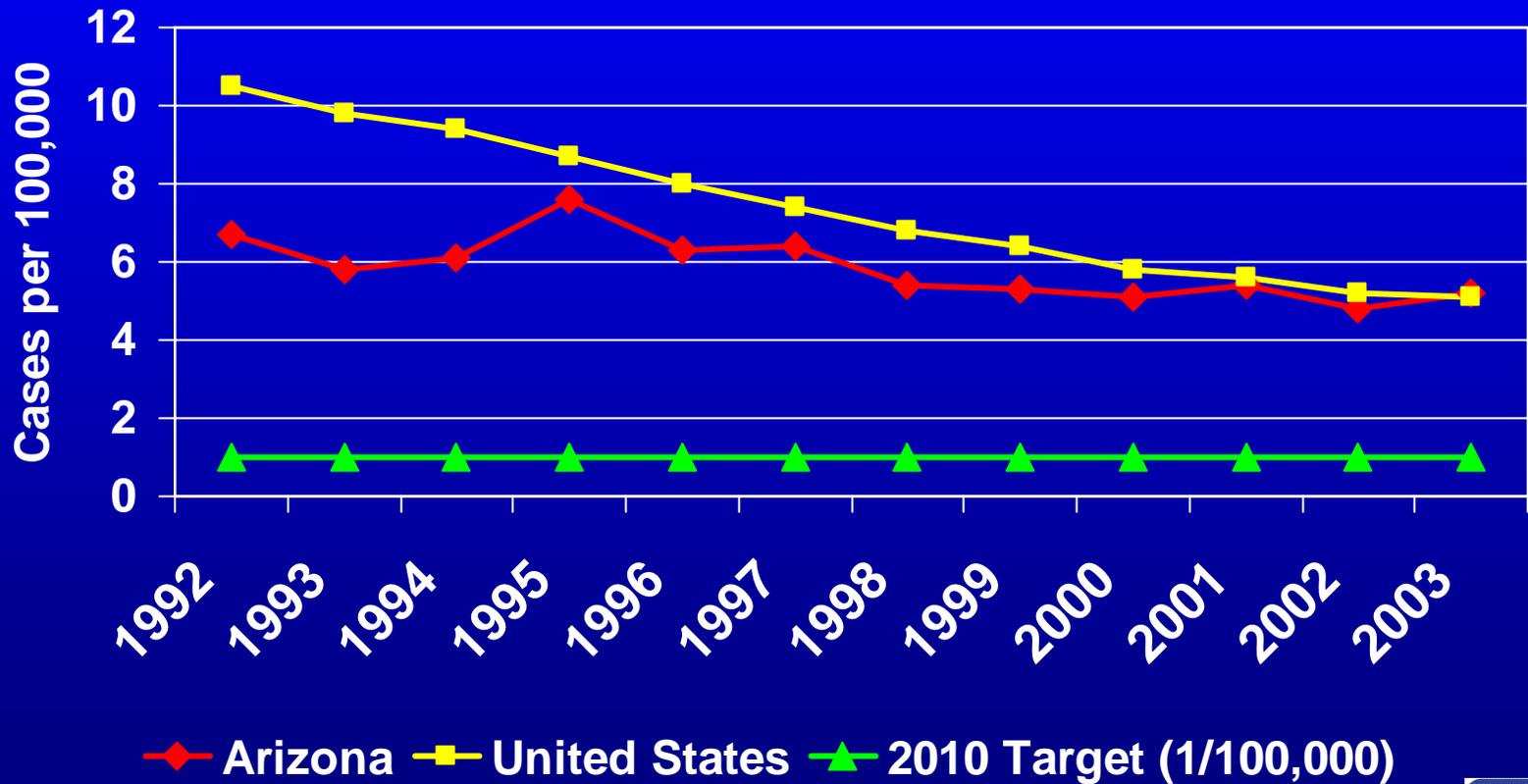
# Reported TB Cases United States, 1981-2003



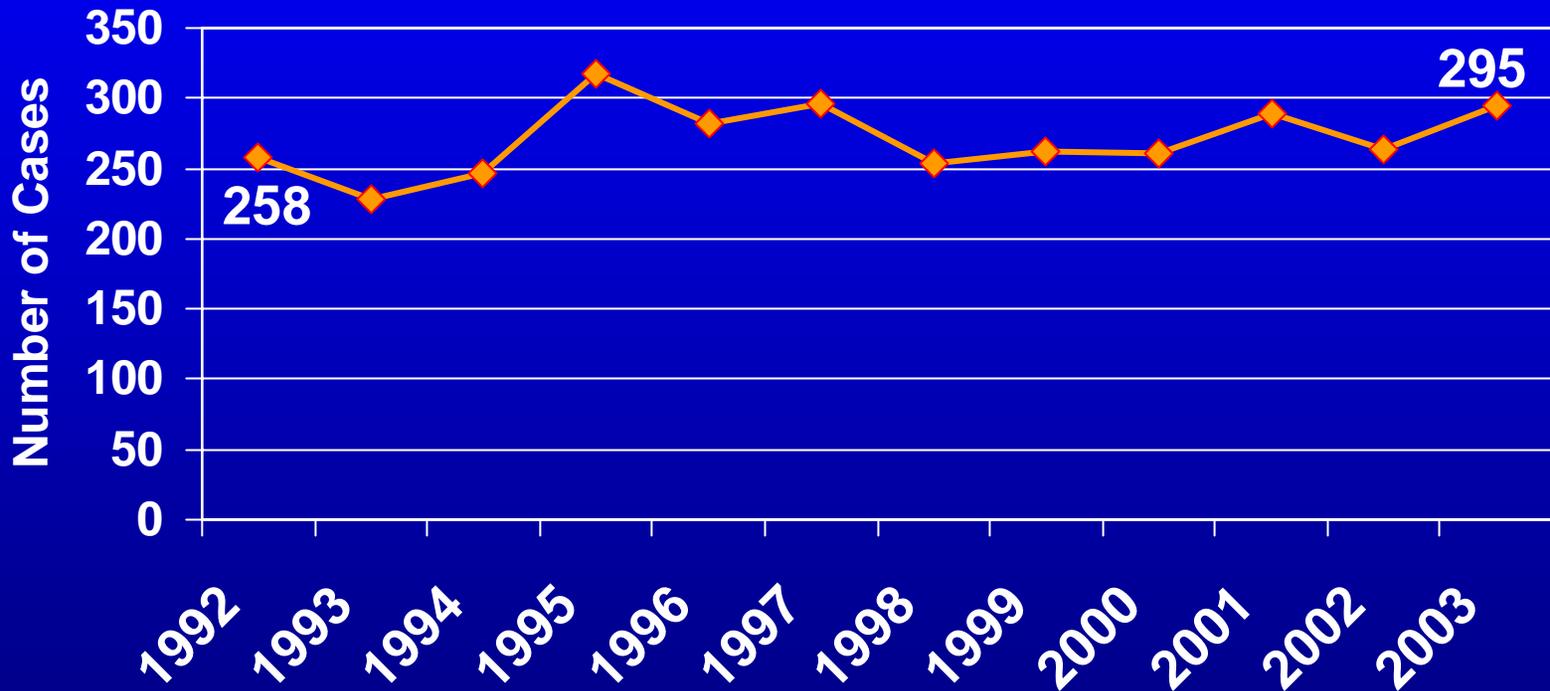
# What Happened in Mid 1980s?

- HIV epidemic
- Deterioration of Public Health infrastructure for TB services
- Homelessness
- Drug and alcohol abuse
- Immigration from high incidence countries

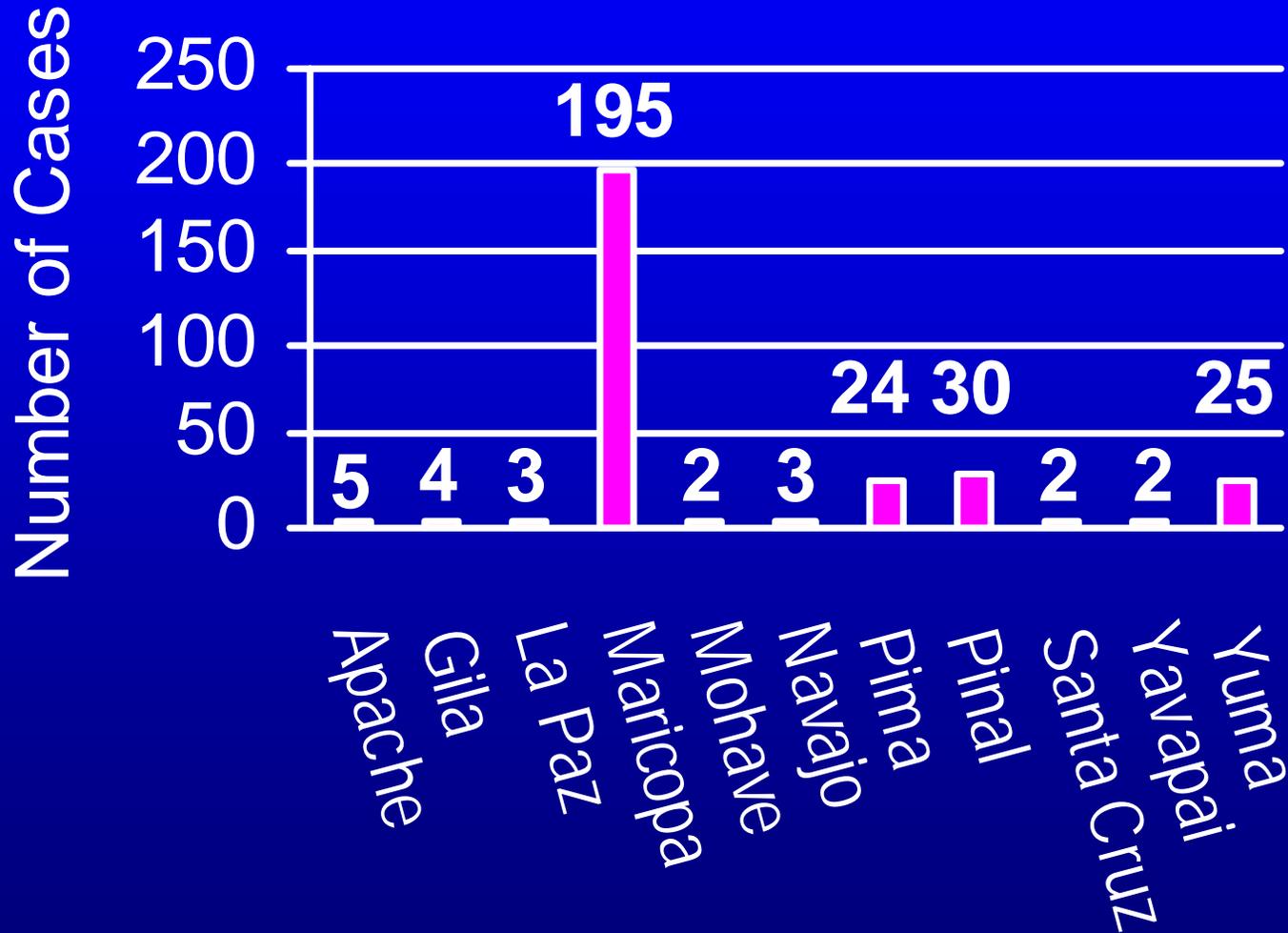
# Tuberculosis Case Rates/100,000 Arizona and United States, 1992 - 2003



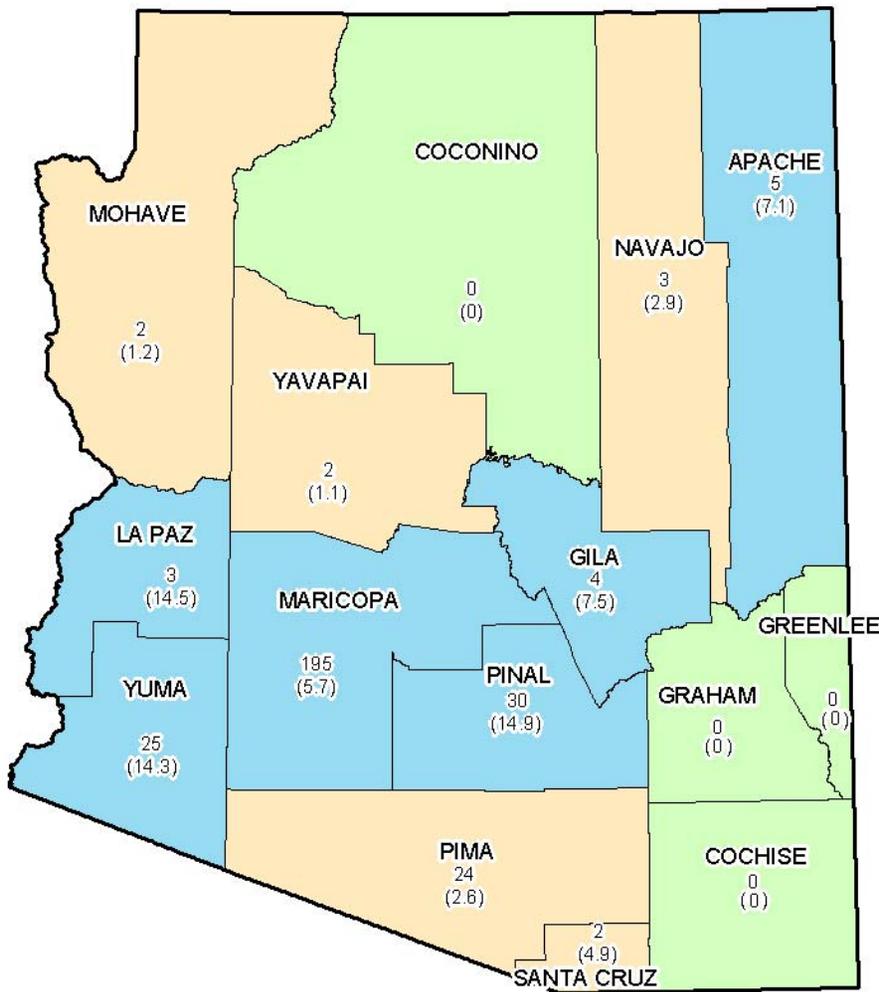
# Reported TB Cases Arizona, 1992 - 2003



# Tuberculosis Cases by County, Arizona, 2003



**Tuberculosis Cases and Case Rates  
per 100,000 Population, Arizona, 2003**

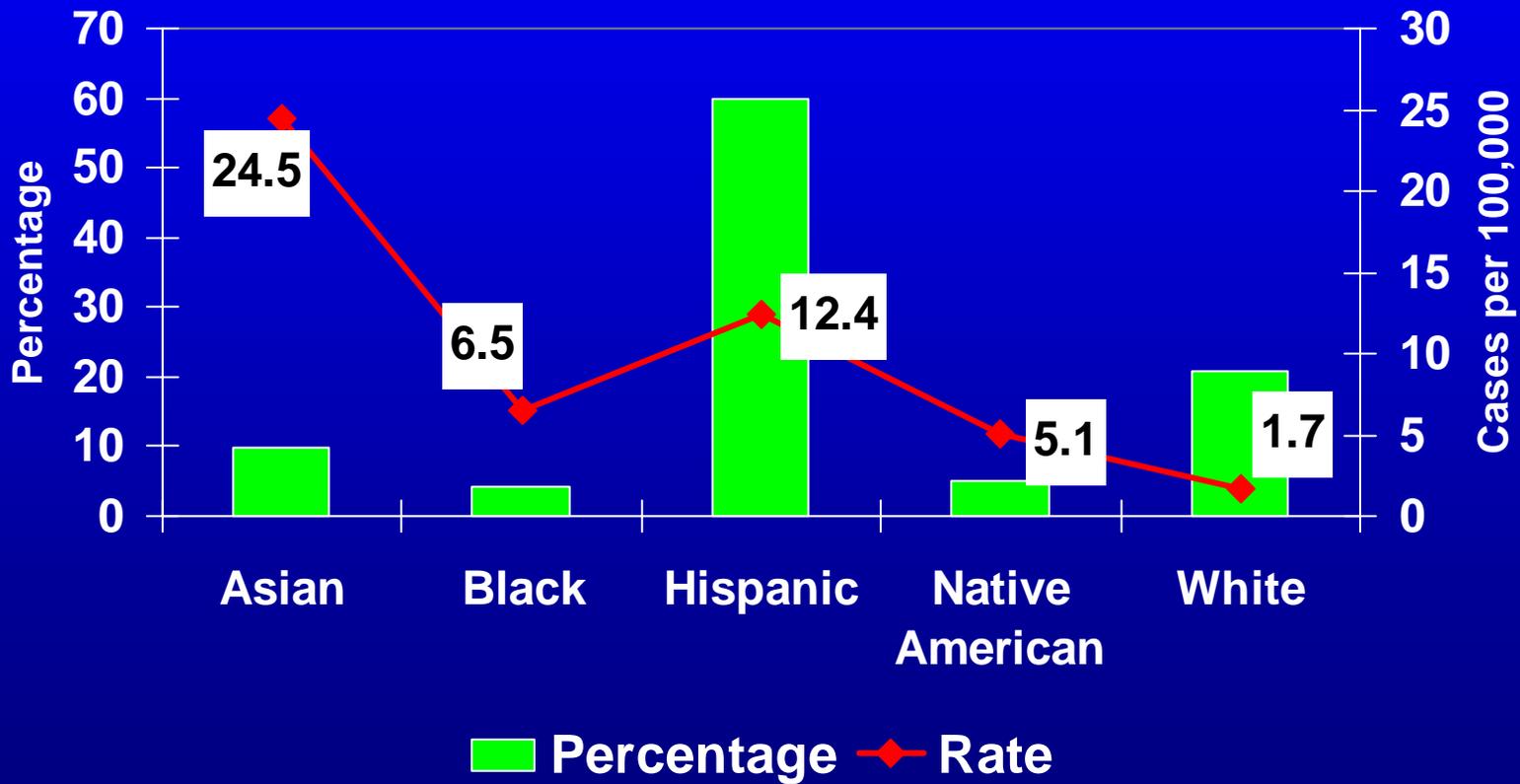


- ≤ 1.0 (1.0/100,000 is the Healthy People 2010 National Objective)
- 1.1 - 5.2 per 100,000 population (5.2 is the State rate for 2003)
- > 5.2 per 100,000 population

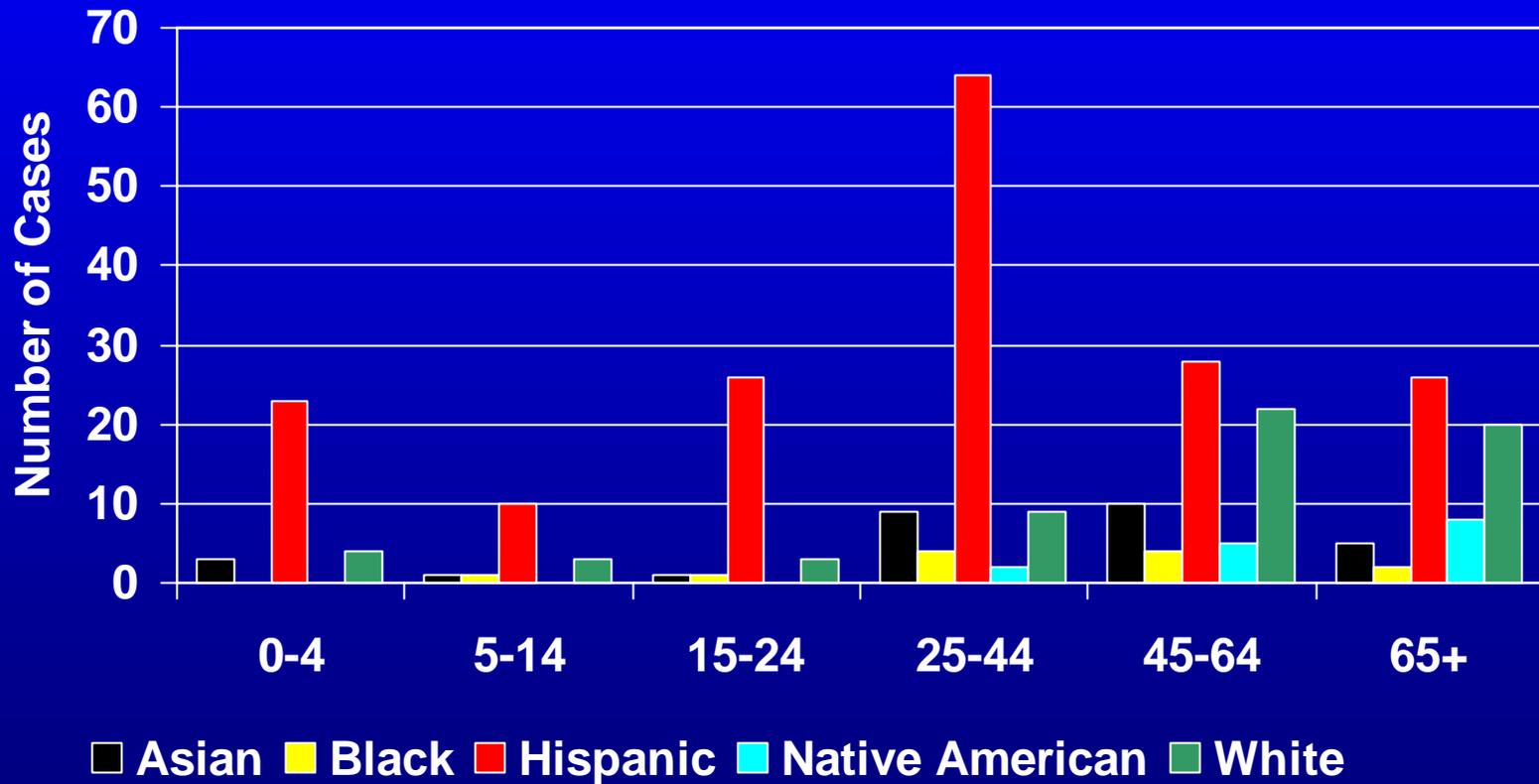
Figures in parentheses denote rates per 100,000 population. Rates for counties with small populations are not statistically reliable as an increase in only one or two cases will result in a dramatic rate increase. Denominators for computing 2003 rates are from the Arizona Department of Economic Security.



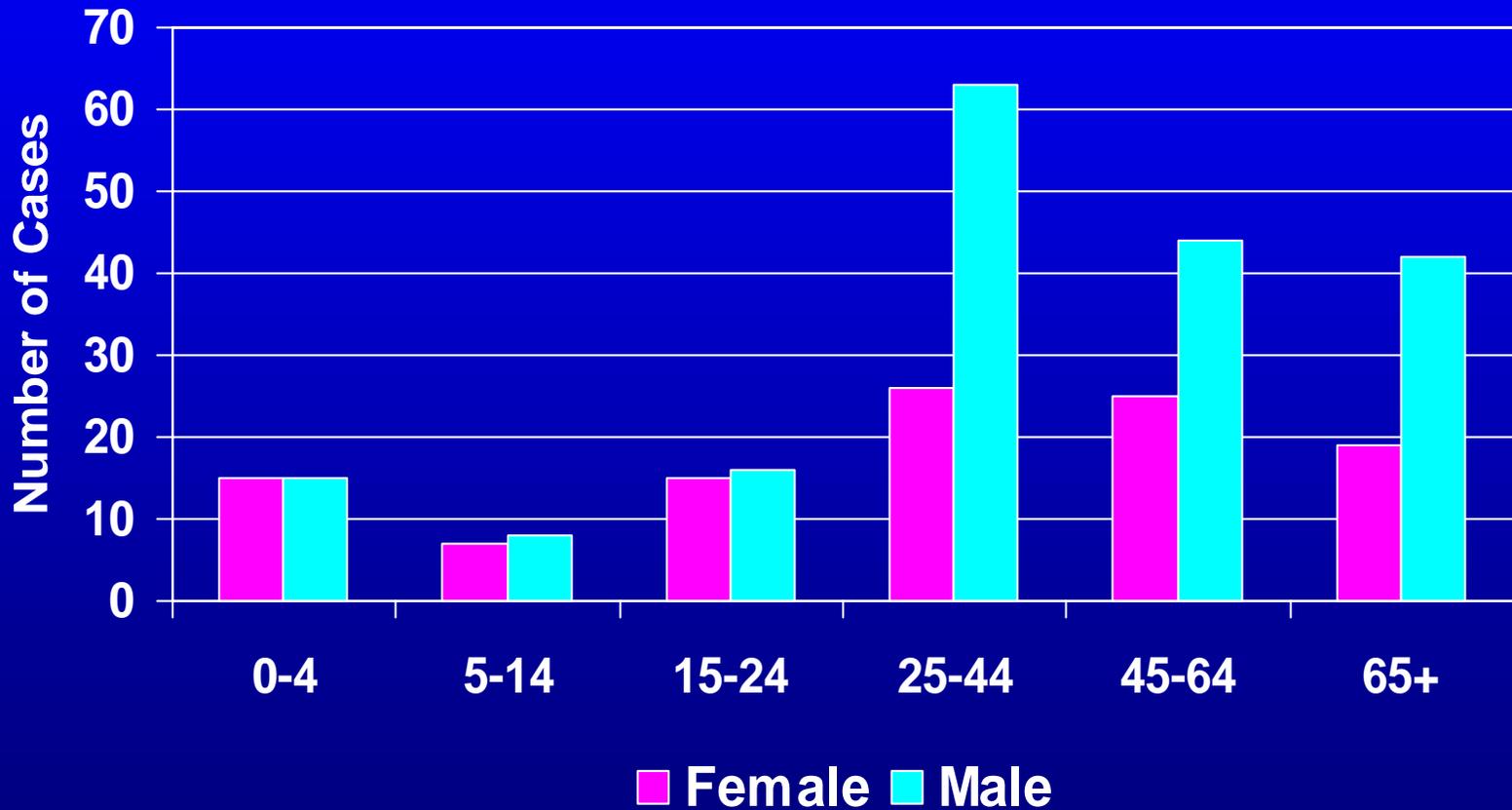
# Case Rates and Percentage of Tuberculosis Cases by Race/Ethnicity, Arizona, 2003



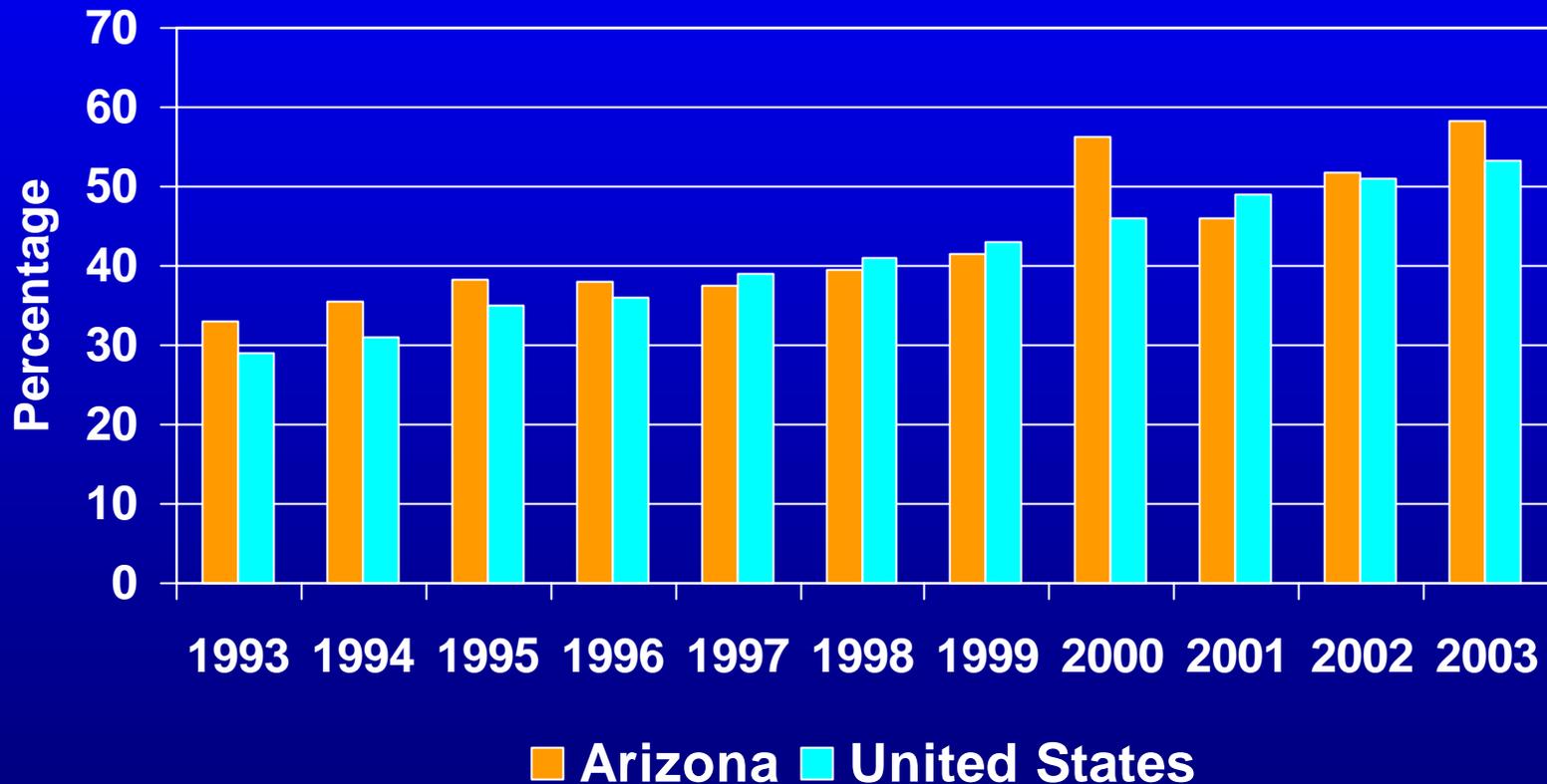
# Tuberculosis Cases by Age Group and Race/Ethnicity, Arizona, 2003



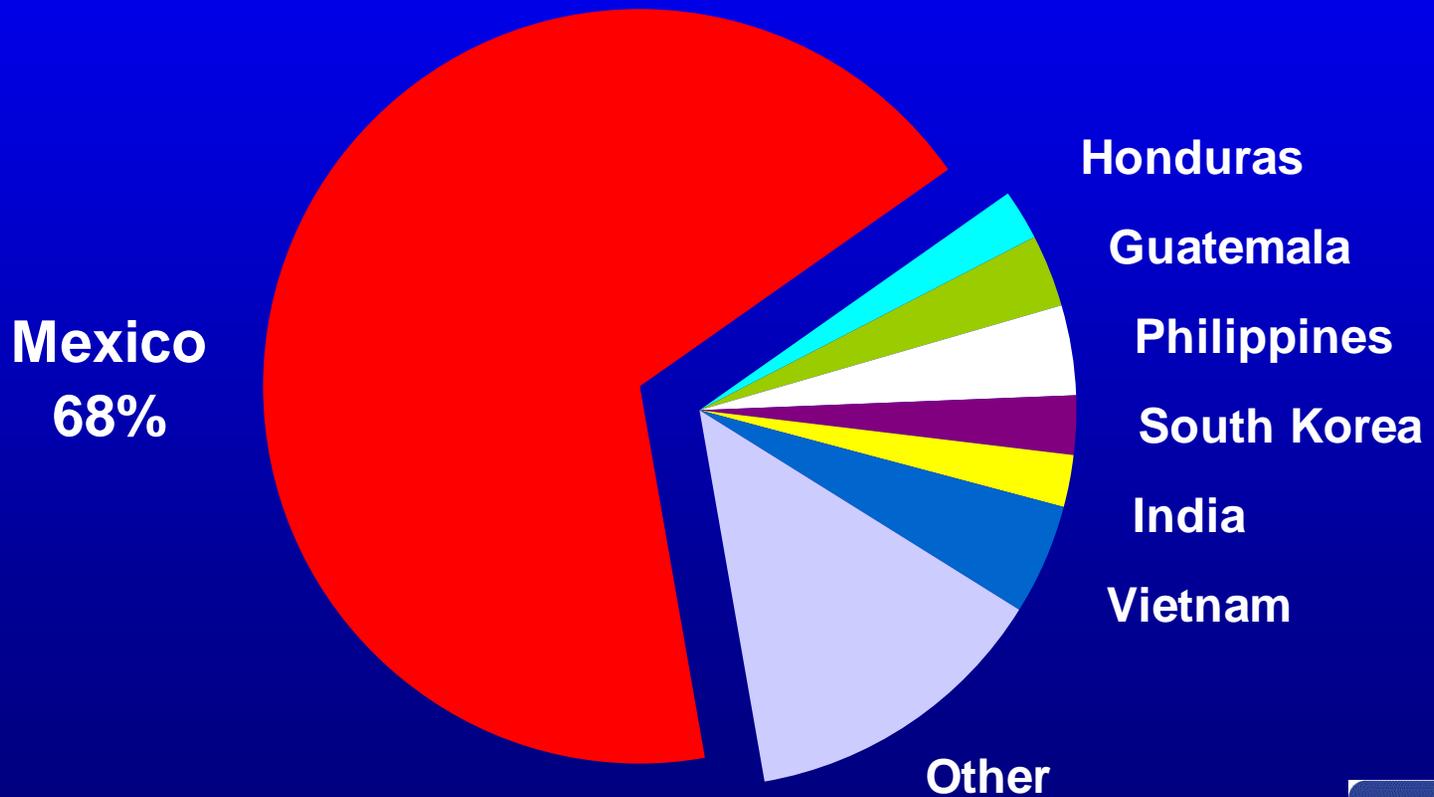
# Tuberculosis Cases by Age Group and Gender, Arizona, 2003



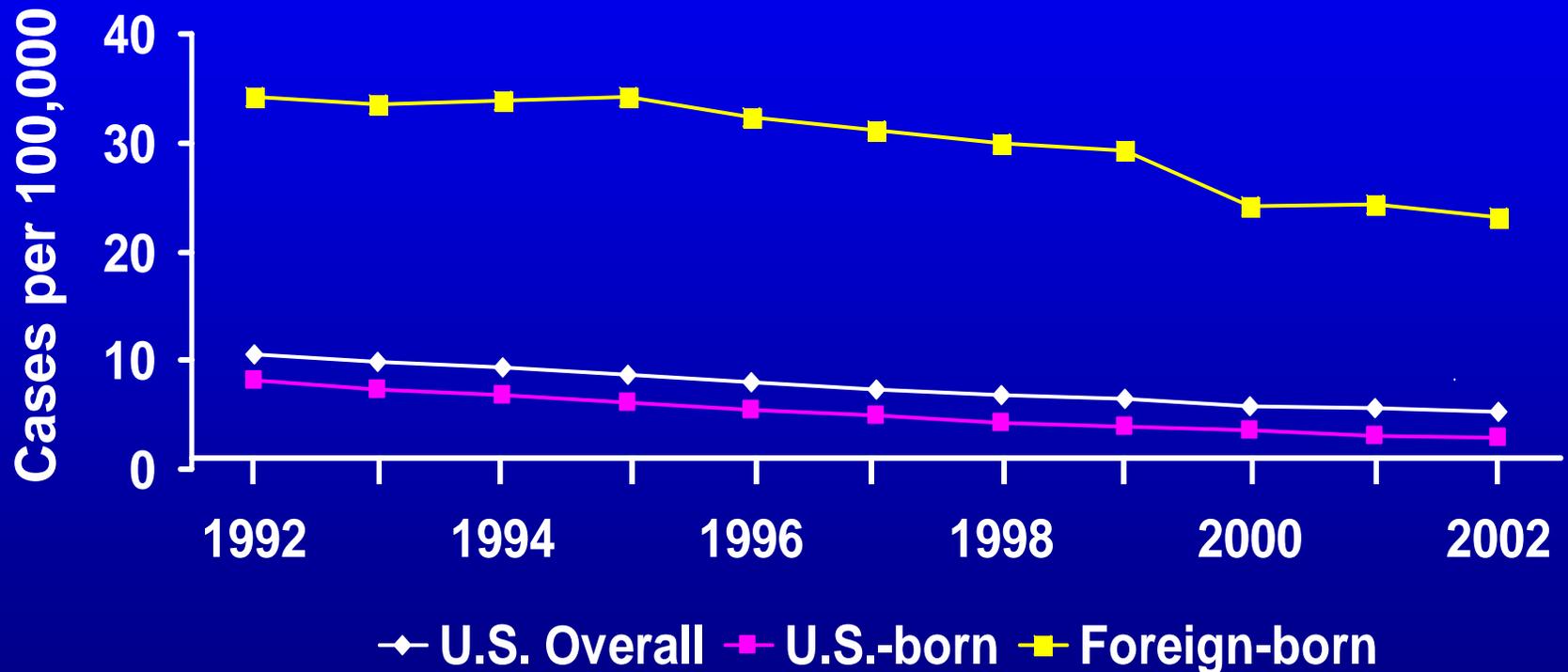
# Percentage of TB Cases Occurring in Foreign-born Persons, Arizona and United States, 1993 - 2003



# Country of Origin for Foreign-born TB Cases, Arizona, 2003



# TB Case Rates in U.S.-born vs. Foreign-born Persons, United States, 1992-2002



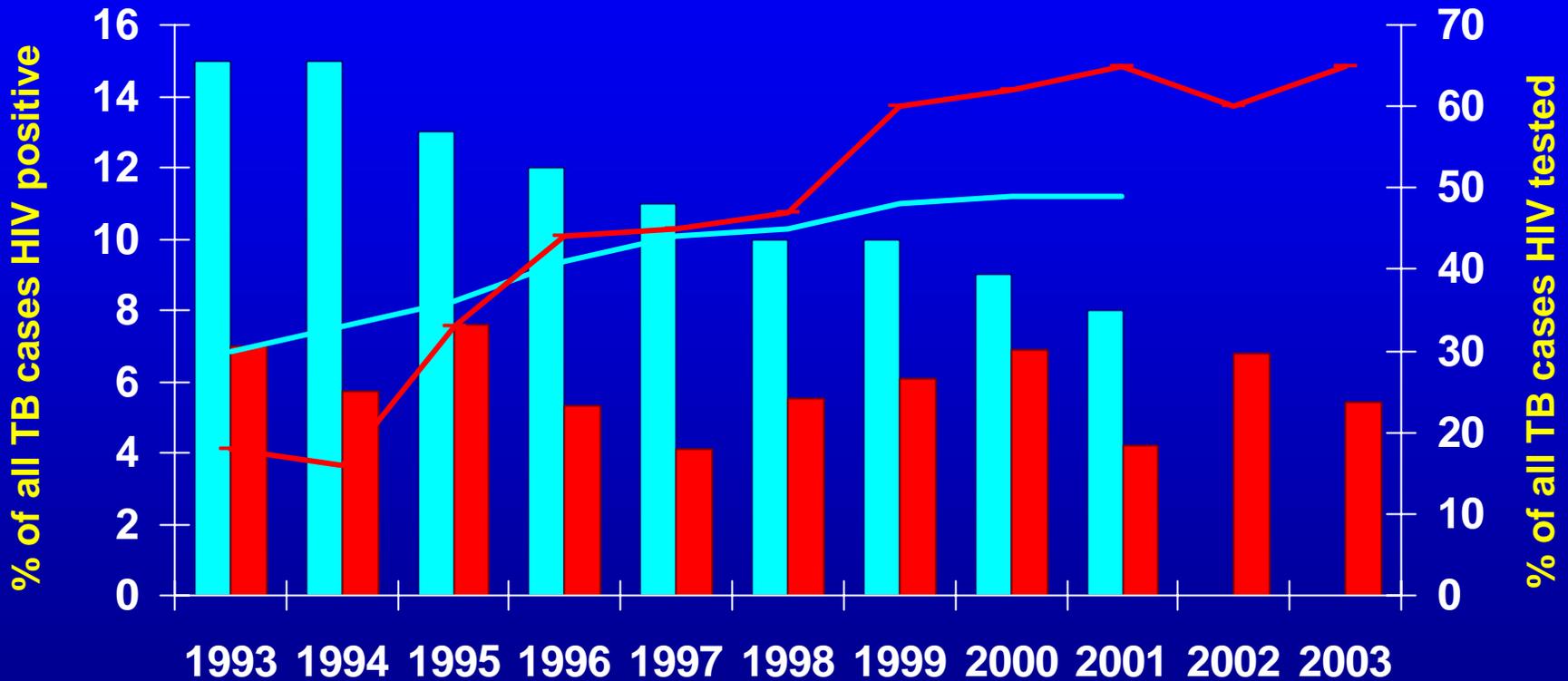
# Risk Factors for TB Cases, Arizona and U.S.

Category	AZ (2003)		U.S. (2002)
	No.	%	%
Excess Alcohol	55	18.6	14.5
Correctional Facility	39	13.2	3.1
Homeless	35	11.9	6.0
Non-injecting Drug Use	23	7.8	7.0
HIV Positive	16	5.4	8.0 (2001)
Injecting Drug Use	5	1.7	2.2
Long-term Care Facility	5	1.7	2.6

# Clinical Characteristics of TB Cases, Arizona, 1999-2003

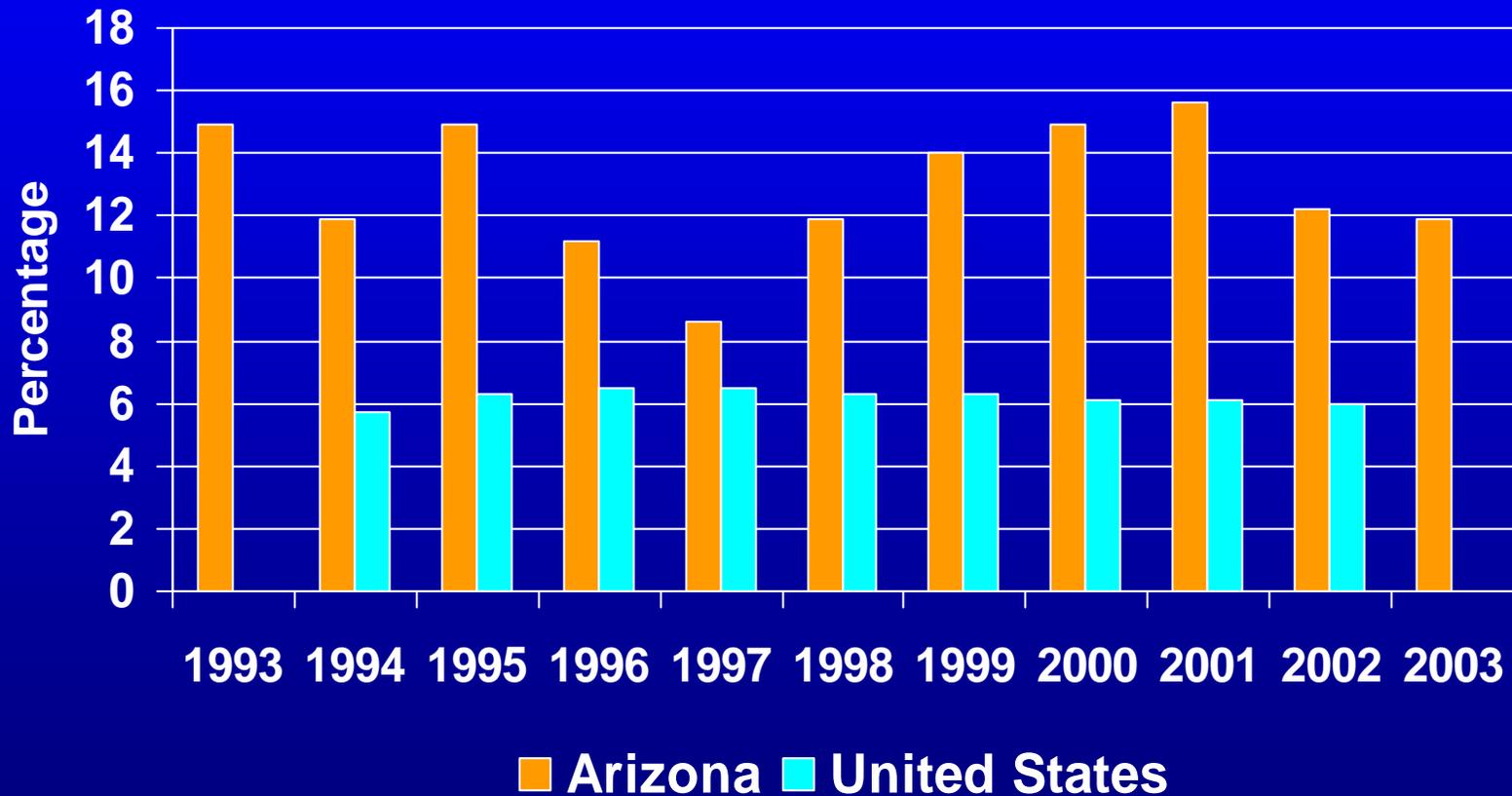
- 55% of pulmonary cases >14 years are sputum smear positive
- 32% of pulmonary cases >14 years have a cavitary CXR at diagnosis
- 69% of TB/HIV patients were 25-44 yrs; BUT 25 co-infected persons were not in this age range, 4 were younger, 3 were in their 70's (test everyone)!

# HIV Co-infection of TB Cases, Arizona and US, 1993-2003

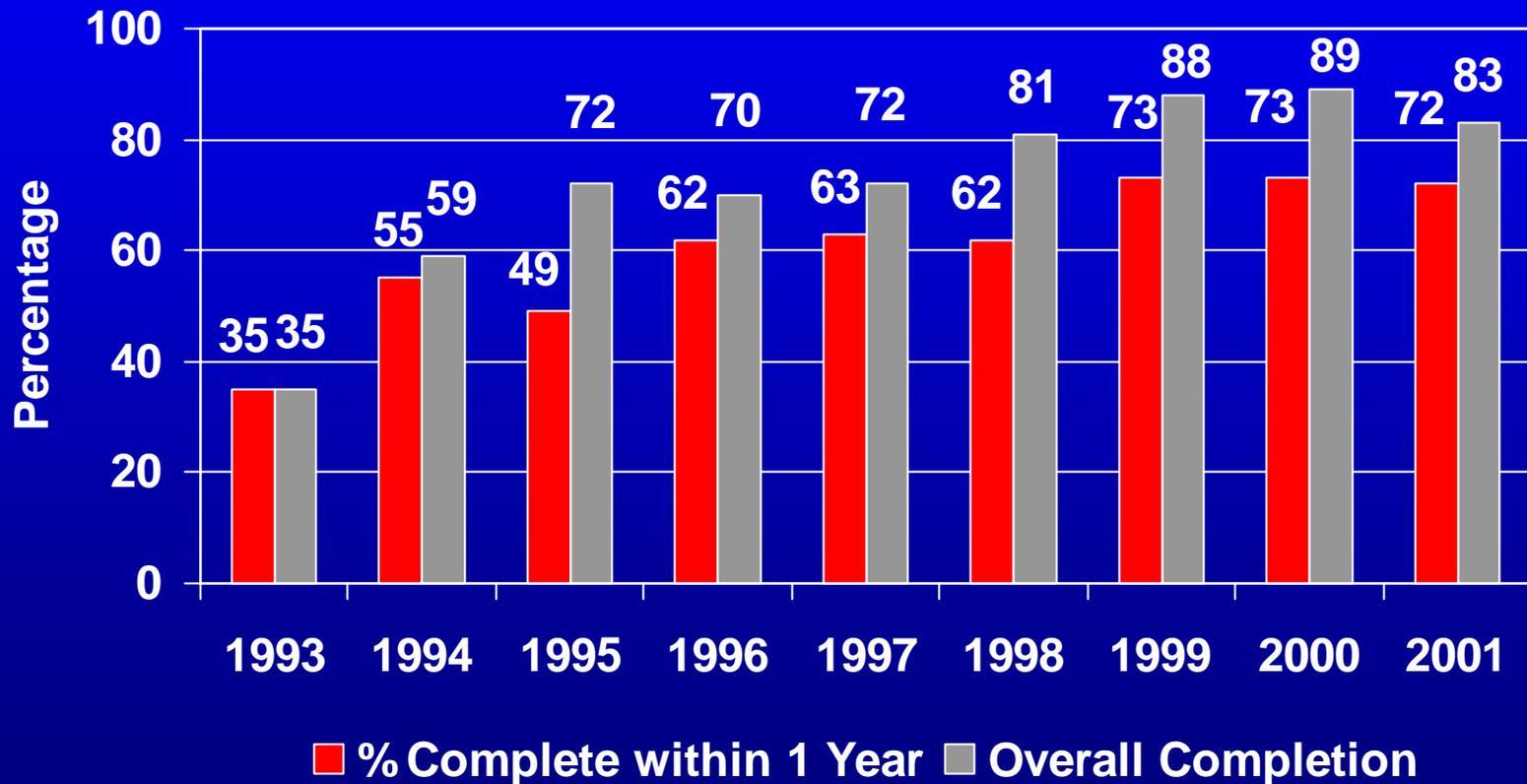


■ HIV positive, US    ■ HIV positive, AZ  
— % tested, US    — % tested, AZ

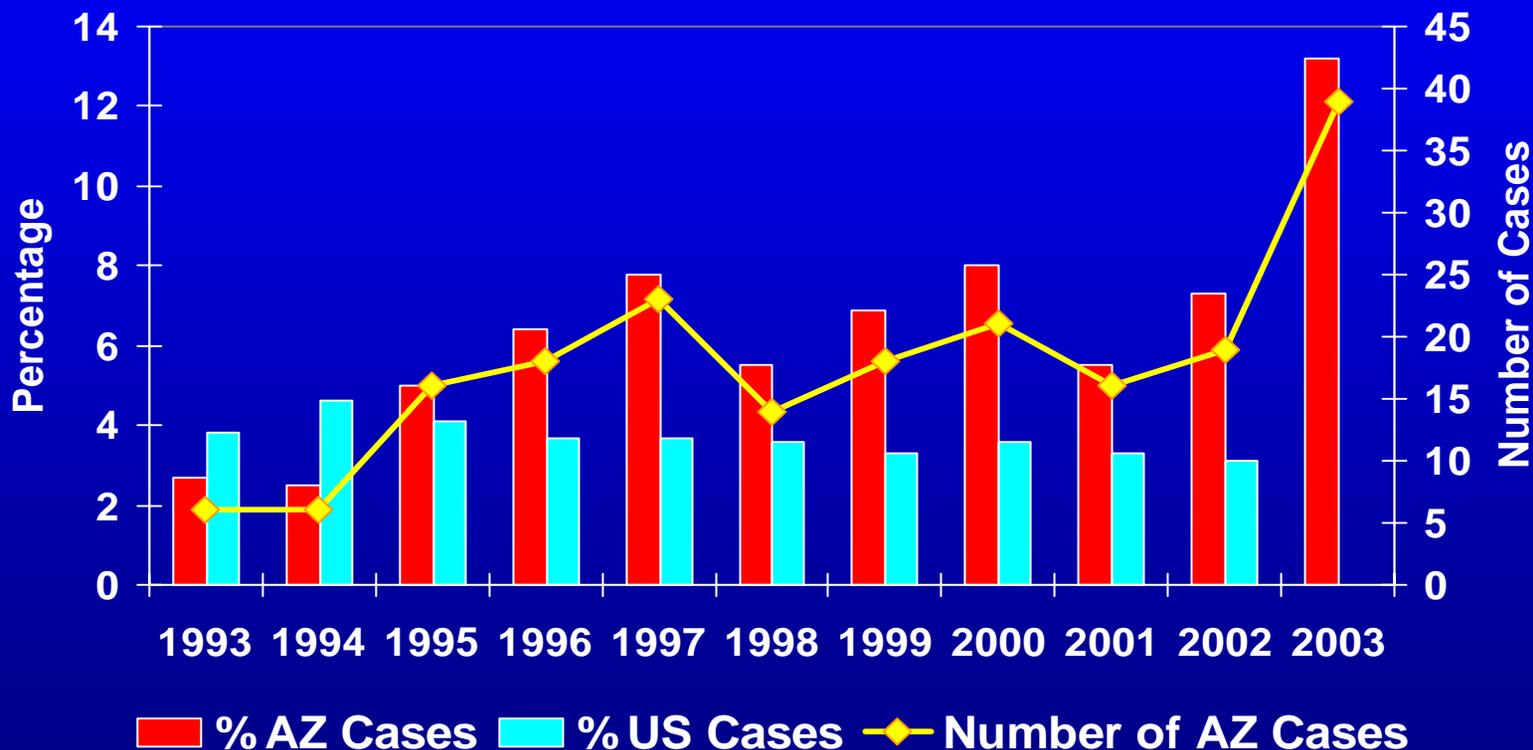
# Proportion of Total TB Cases Occurring in Homeless Persons, Arizona and United States, 1993 - 2003



# Completion of TB Therapy Among Homeless Persons, Arizona, 1993 - 2001

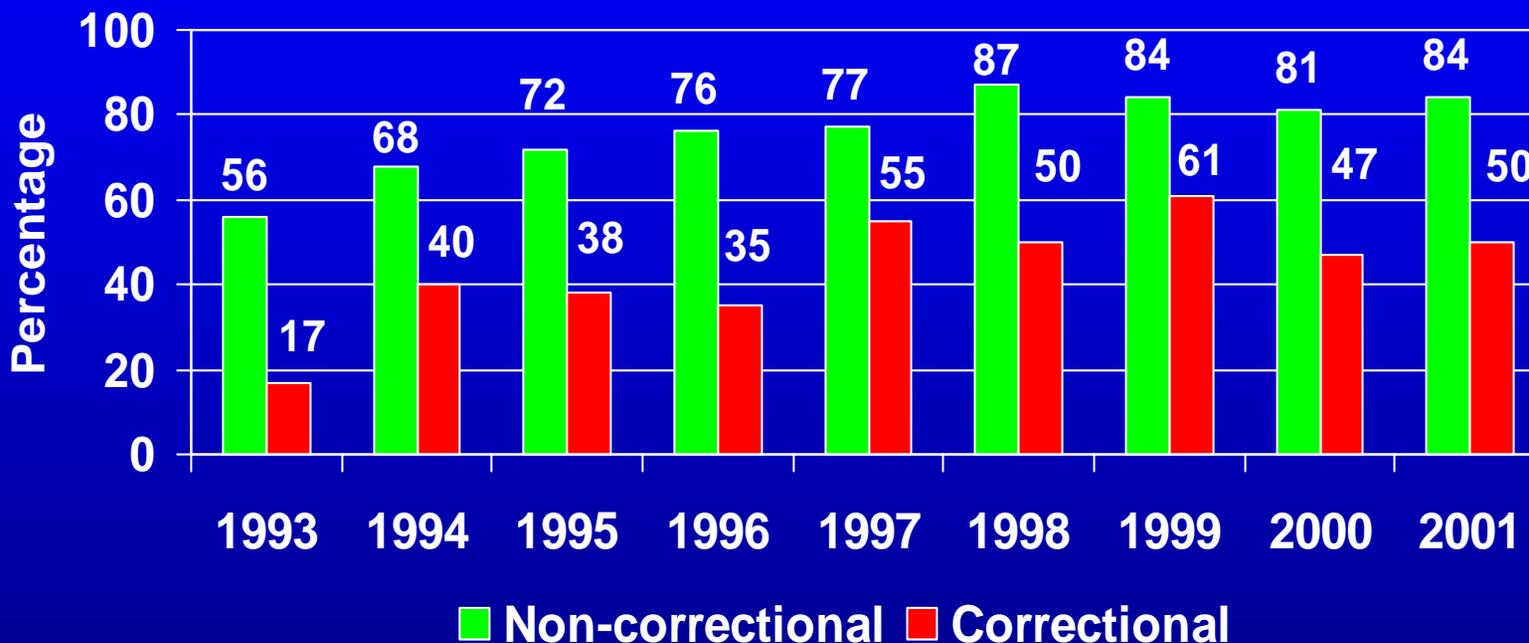


# Tuberculosis in Residents of Correctional Facilities, Arizona and U.S., 1993 - 2003



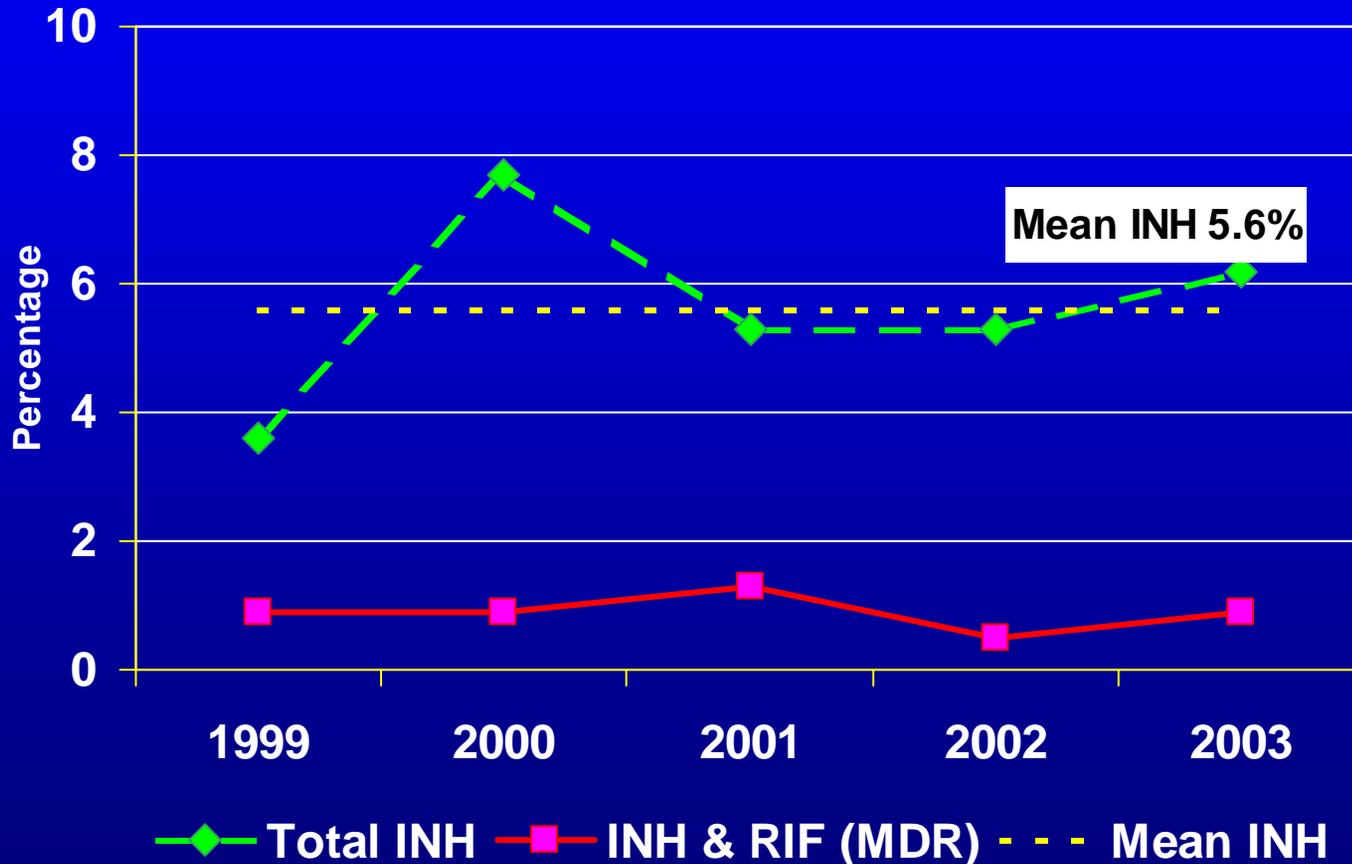
In 2002, AZ had the highest percentage (7.3%) of TB cases diagnosed in a correctional facility in the US

# Completion of TB Therapy Within 12 Months by Residence: Correctional Facility vs Non-CF, Arizona, 1993-2001

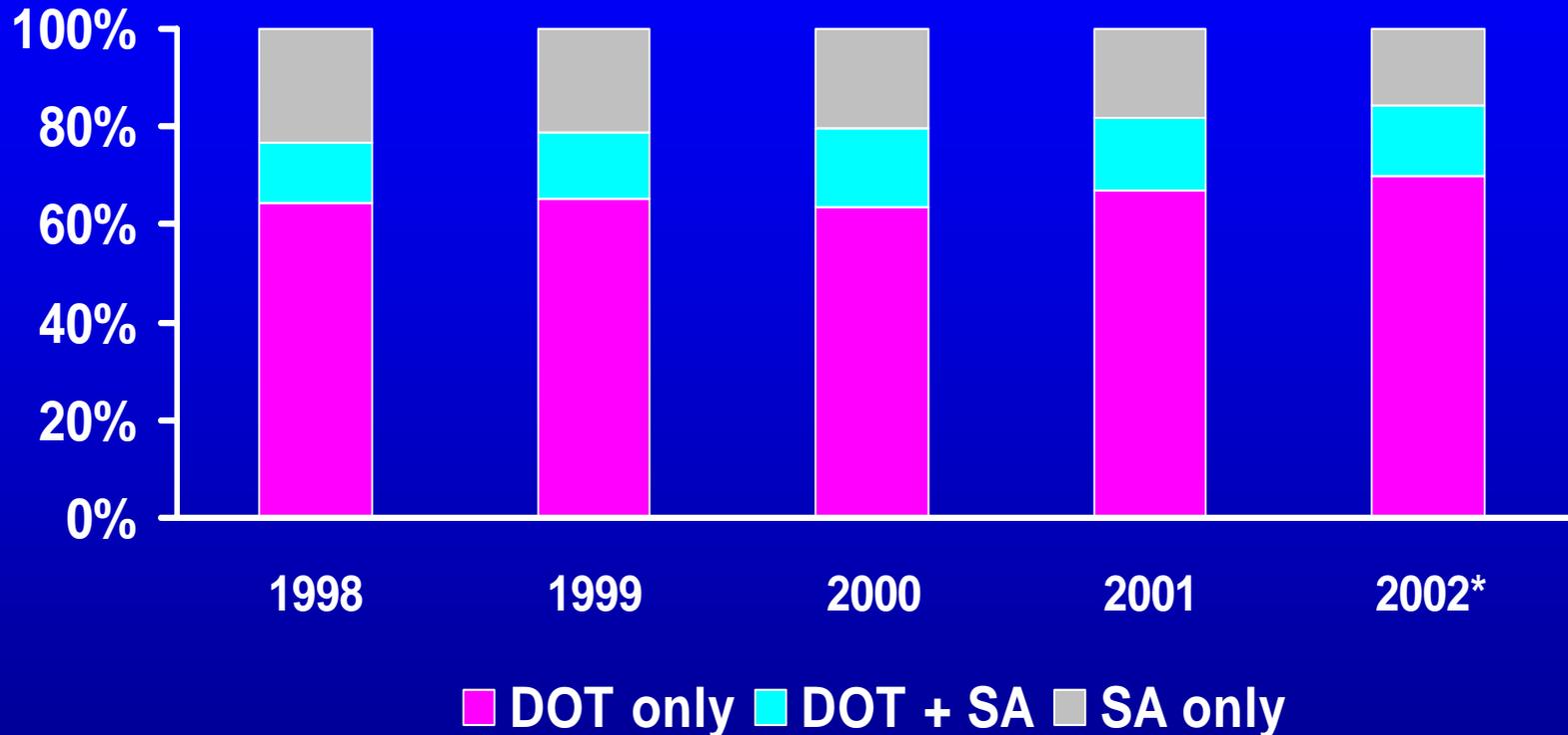


**National Goal: 90% to complete therapy within 12 months**

# Primary Resistance to Anti-TB Drugs, Arizona, 1999 - 2003



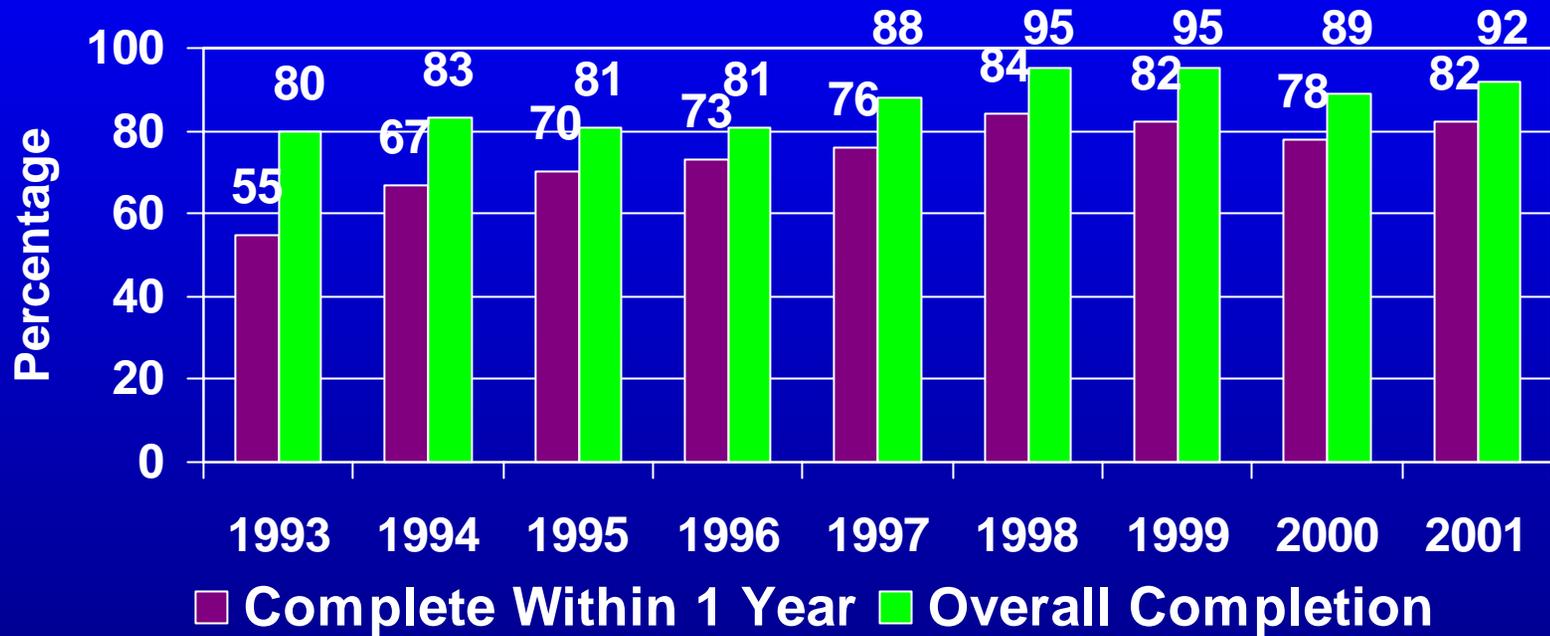
# Use of Directly Observed Therapy, Arizona, 1998 - 2002



\*data for 2002 are preliminary

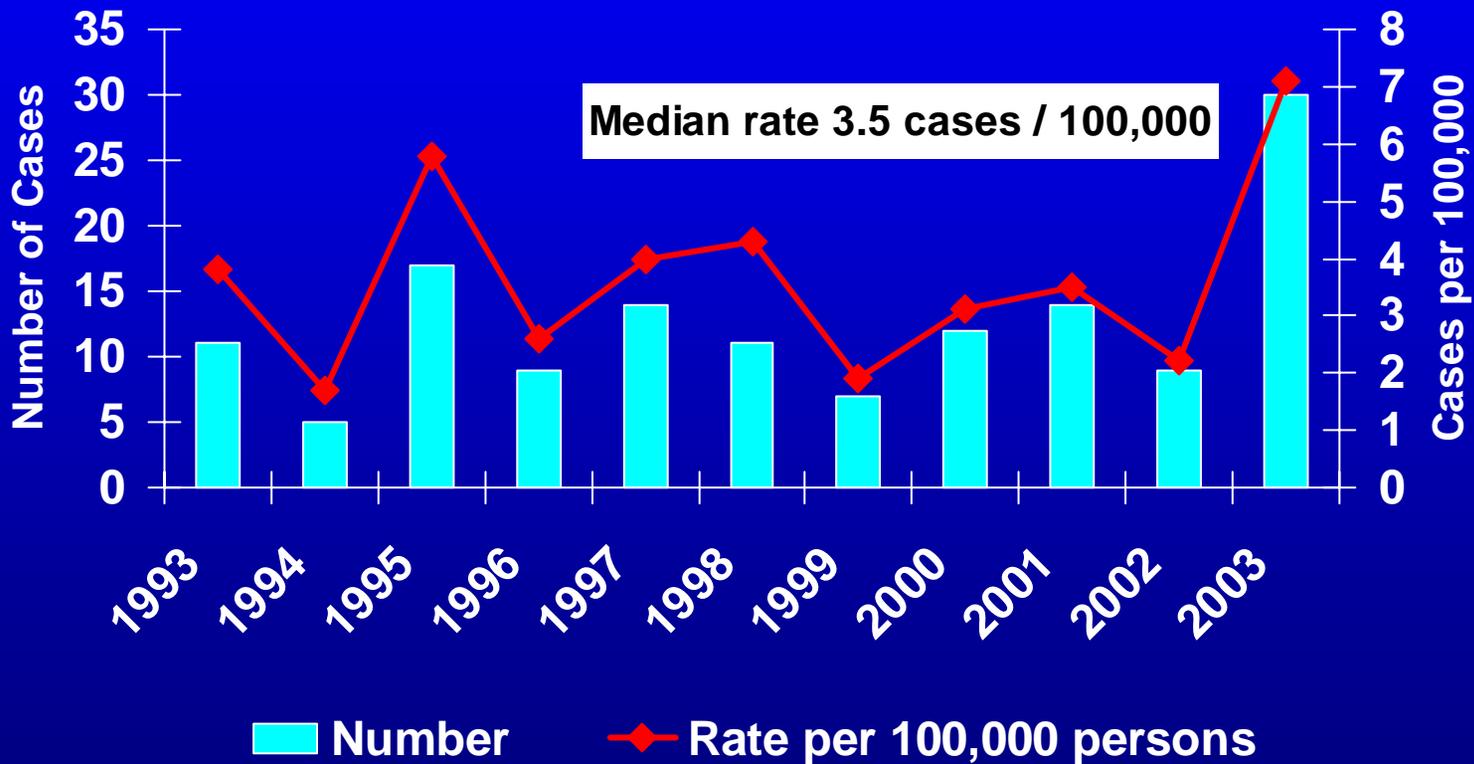
Directly observed therapy (DOT); Self-administered therapy (SA)

# Completion of Tuberculosis Therapy, Arizona, 1993 - 2001



**National Goal: 90% to complete therapy  
within 12 months**

# Pediatric (<5 years) TB Cases, Arizona, 1993 - 2003



**Note: 77% of 2003 pediatric cases were Hispanic in 2003**

# Conclusion

- Arizona moved up from #18 in 2002 to #11 in 2003 for the number of TB cases in the U.S.
- Funds for targeted testing are drying up – the focus for decreasing new cases is to quickly identify and treat persons with active disease
- Improve case finding among Hispanics and other high risk groups to decrease transmission and reduce pediatric cases
- **THINK TB!**